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NEWS 7 MAY 19 Derwent World Patents Index to be reloaded and enhanced
NEWS 8 MAY 30 IPC 8 Rolled-up Core codes added to CA/Capplus and
USPATFULL/USPAT2
NEWS 9 MAY 30 The F-Term thesaurus is now available in CA/Capplus
NEWS 10 JUN 02 The first reclassification of IPC codes now complete in
INPADOC
NEWS 11 JUN 26 TULSA/TULSA2 reloaded and enhanced with new search and
and display fields
NEWS 12 JUN 28 Price changes in full-text patent databases EPFULL and PCTFULL
NEWS 13 JUL 11 CHEMSAFE reloaded and enhanced
NEWS 14 JUL 14 FSTA enhanced with Japanese patents
NEWS 15 JUL 19 Coverage of Research Disclosure reinstated in DWPI

NEWS EXPRESS JUNE 30 CURRENT WINDOWS VERSION IS V8.01b, CURRENT
MACINTOSH VERSION IS V6.0c(ENG) AND V6.0Jc(JP),
AND CURRENT DISCOVER FILE IS DATED 26 JUNE 2006.

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* * * * * STN Columbus * * * * *

FILE 'HOME' ENTERED AT 12:51:30 ON 06 AUG 2006

=> file caplus
COST IN U.S. DOLLARS

SINCE FILE	TOTAL
ENTRY	SESSION
0.21	0.21

FULL ESTIMATED COST

FILE 'CAPLUS' ENTERED AT 12:51:37 ON 06 AUG 2006
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FILE COVERS 1907 - 6 Aug 2006 VOL 145 ISS 7
FILE LAST UPDATED: 4 Aug 2006 (20060804/ED)

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<http://www.cas.org/infopolicy.html>

=> s (make up gas or supplemental gas)

235401 MAKE
183608 MAKES
406320 MAKE
(MAKE OR MAKES)
1161741 UP
12624 UPS
1172413 UP
(UP OR UPS)
1514333 GAS
511435 GASES
1696248 GAS
(GAS OR GASES)
196 MAKE UP GAS
(MAKE (W) UP (W) GAS)
12619 SUPPLEMENTAL
1514333 GAS
511435 GASES
1696248 GAS
(GAS OR GASES)
38 SUPPLEMENTAL GAS
(SUPPLEMENTAL (W) GAS)

L1 234 (MAKE UP GAS OR SUPPLEMENTAL GAS)

=> s l1 and flow rate

852194 FLOW
87059 FLOWS
890941 FLOW
(FLOW OR FLOWS)
1763181 RATE
589435 RATES
2104529 RATE
(RATE OR RATES)
124883 FLOW RATE
(FLOW (W) RATE)

L2 40 L1 AND FLOW RATE

=> s l2 and (prevent? (3a) catalyst or fluidiza? catalyst or prevent? (4a) catalyst (4a) precipitat?)

870303 PREVENT?
729863 CATALYST
732702 CATALYSTS

936653 CATALYST
 (CATALYST OR CATALYSTS)
 3510 PREVENT? (3A) CATALYST
 13250 FLUIDIZA?
 729863 CATALYST
 732702 CATALYSTS
 936653 CATALYST
 (CATALYST OR CATALYSTS)
 46 FLUIDIZA? CATALYST
 (FLUIDIZA? (W) CATALYST)
 870303 PREVENT?
 729863 CATALYST
 732702 CATALYSTS
 936653 CATALYST
 (CATALYST OR CATALYSTS)
 87620 PRECIPITAT?
 198139 PPT
 65715 PPTS
 244726 PPT
 (PPT OR PPTS)
 153067 PPTD
 1 PPTDS
 153068 PPTD
 (PPTD OR PPTDS)
 36452 PPTG
 258365 PPTN
 4231 PPTNS
 260988 PPTN
 (PPTN OR PPTNS)
 592399 PRECIPITAT?
 (PRECIPITAT? OR PPT OR PPTD OR PPTG OR PPTN)
 40 PREVENT? (4A) CATALYST (4A) PRECIPITAT?
 L3 0 L2 AND (PREVENT? (3A) CATALYST OR FLUIDIZA? CATALYST OR PREVENT?
 (4A) CATALYST (4A) PRECIPITAT?)

Freeform Search

Database:	<div style="border: 1px solid black; padding: 2px;"> US Pre-Grant Publication Full-Text Database US Patents Full-Text Database US OCR Full-Text Database EPO Abstracts Database JPO Abstracts Database Derwent World Patents Index IBM Technical Disclosure Bulletins </div>
Term:	<div style="border: 1px solid black; padding: 2px;"> initial flow rate and fischer tropsch </div>
Display:	<div style="border: 1px solid black; padding: 2px;">50</div> Documents in Display Format: <div style="border: 1px solid black; padding: 2px;">-</div> Starting with Number <div style="border: 1px solid black; padding: 2px;">1</div>
Generate: <input type="radio"/> Hit List <input checked="" type="radio"/> Hit Count <input type="radio"/> Side by Side <input type="radio"/> Image	

Search

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DATE: Sunday, August 06, 2006 [Printable Copy](#) [Create Case](#)

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side by side			result set
<i>DB=PGPB,USPT,USOC,EPAB,JPAB,DWPI; THES=ASSIGNEE; PLUR=YES; OP=ADJ</i>			
<u>L5</u>	initial flow rate and fischer tropsch	13	<u>L5</u>
<u>L4</u>	initail flow rate and fischer tropsch	0	<u>L4</u>
<u>L3</u>	predetermind flow rate	2	<u>L3</u>
<u>L2</u>	L1 and (reference flow rate or predetermind flow rate)	2	<u>L2</u>
<u>L1</u>	fluidized bed and supplemental gas	40	<u>L1</u>

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Search Results - Record(s) 1 through 3 of 3 returned.

☐ 1. Document ID: US 20050209351 A1

L2: Entry 1 of 3

File: PGPB

Sep 22, 2005

PGPUB-DOCUMENT-NUMBER: 20050209351

PGPUB-FILING-TYPE: new

DOCUMENT-IDENTIFIER: US 20050209351 A1

TITLE: Prevention of and recovering from a catalyst bed slumping in a gas-agitated multiphase reactor

PUBLICATION-DATE: September 22, 2005

INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY
Mohedas, Sergio R.	Ponca City	OK	US
Espinoza, Rafael L.	Ponca City	OK	US
Cnossen, Jack E.	Ponca City	OK	US
Harkins, Todd H.	Ponca City	OK	US
Melquist, Vincent H.	Willmar	MN	US
Swinney, Larry D.	Stillwater	OK	US

ASSIGNEE-INFORMATION:

NAME	CITY	STATE	COUNTRY	TYPE CODE
ConocoPhillips Company	Houston	TX		02

APPL-NO: 10/804521 [PALM]

DATE FILED: March 19, 2004

INT-CL-PUBLISHED: [07] C07 C 27/26

US-CL-PUBLISHED: 518/726

US-CL-CURRENT: 518/726

REPRESENTATIVE-FIGURES: 1

ABSTRACT:

The invention relates to methods for prevention of and recovery from a catalyst bed slumping in a gas-agitated multiphase hydrocarbon synthesis reactor, while the reactor is either under non-reactive conditions or under reaction promoting conditions when syngas is converted to products. The reactor contains a catalyst bed comprising catalyst particles and a gas injection zone suitable for injecting a

reactor gas feed. A method for preventing bed slumping comprises supplying a supplemental gas to the gas-agitated multiphase reactor to prevent the catalyst bed from slumping due to insufficient reactor gas feed flow. The method may include recycling some or all of the supplemental gas to the reactor. The method may further comprise separating the gas injection zone from the catalyst bed with a porous plate so as to prevent migration of catalyst particles into the gas injection zone and to minimize plugging of gas distributor(s) present in said zone.

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	Claims	FIGS	Drawings
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☐ 2. Document ID: US 20040048938 A1

L2: Entry 2 of 3

File: PGPB

Mar 11, 2004

PGPUB-DOCUMENT-NUMBER: 20040048938

PGPUB-FILING-TYPE: new

DOCUMENT-IDENTIFIER: US 20040048938 A1

TITLE: Gas agitated multiphase reactor with stationary catalyst solid phase

PUBLICATION-DATE: March 11, 2004

INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY
Mohedas, Sergio R.	Ponca City	OK	US
Espinoza, Rafael L.	Ponca City	OK	US
Zhang, Jianping	Ponca City	OK	US

ASSIGNEE-INFORMATION:

NAME	CITY	STATE	COUNTRY	TYPE CODE
Conoco Inc.	Houston	TX	US	02

APPL-NO: 10/238008 [PALM]

DATE FILED: September 9, 2002

INT-CL-PUBLISHED: [07] C07 C 27/26, B01 J 8/04

US-CL-PUBLISHED: 518/726; 422/188

US-CL-CURRENT: 518/726; 422/188

REPRESENTATIVE-FIGURES: 1

ABSTRACT:

An apparatus for converting a gaseous and/or liquid feed fluid to gaseous and/or liquid products using a solid catalyst comprises a reactor, a liquid phase disposed within the reactor volume, a fixed catalyst at least partially disposed in the liquid phase, a cooling system having a cooling element in thermal contact with the liquid phase, a feed inlet positioned to feed the feed fluid into the reactor volume, and a fluid outlet in fluid communication with the liquid phase. The catalyst is contained in a catalyst container and the container may be adjacent to

said cooling element, extend through said cooling element, or may surround the catalyst container. The catalyst may be a Fischer-Tropsch catalyst.

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	Claims	DOC	Drawings
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☐ 3. Document ID: US 20040048938 A1

L2: Entry 3 of 3

File: DWPI

Mar 11, 2004

DERWENT-ACC-NO: 2004-281254

DERWENT-WEEK: 200426

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TITLE: Conversion apparatus for gaseous or liquid feed fluid, e.g. carbon monoxide and hydrogen, to gaseous or liquid products, e.g. hydrocarbon, comprises gas agitated multiphase reactor

INVENTOR: ESPINOZA, R L; MOHEDAS, S R ; ZHANG, J

PRIORITY-DATA: 2002US-0238008 (September 9, 2002)

PATENT-FAMILY:

PUB-NO	PUB-DATE	LANGUAGE	PAGES	MAIN-IPC
US 20040048938 A1	March 11, 2004		012	C07C027/26

INT-CL (IPC): B01 J 8/04; C07 C 27/26

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	Claims	DOC	Drawings
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Clear	Generate Collection	Print	Fwd Refs	Bkwd Refs	Generate OACS
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Term	Documents
GAS	2828801
GASES	678993
AGITATED	157423
AGITATEDS	1
MULTIPHASE	20502
MULTIPHASES	77
REACTOR	430955
REACTORS	101703
(((AGITATED NEAR2 GAS) ADJ MULTIPHASE) ADJ REACTOR) .TI. .PGPB,USPT,USOC,EPAB,JPAB,DWPI.	3
(((GAS NEAR2 AGITATED MULTIPHASE REACTOR) .TI.) .PGPB,USPT,USOC,EPAB,JPAB,DWPI.	3

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NEWS 13 JUL 11 CHEMSAFE reloaded and enhanced
NEWS 14 JUL 14 FSTA enhanced with Japanese patents
NEWS 15 JUL 19 Coverage of Research Disclosure reinstated in DWPI

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MACINTOSH VERSION IS V6.0c(ENG) AND V6.0Jc(JP),
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SINCE FILE	TOTAL
ENTRY	SESSION
0.21	0.21

FULL ESTIMATED COST

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FILE COVERS 1907 - 6 Aug 2006 VOL 145 ISS 7
FILE LAST UPDATED: 4 Aug 2006 (20060804/ED)

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```
=> s gas agitated fluidized bed
    1514333 GAS
    511435 GASES
    1696248 GAS
        (GAS OR GASES)
    26292 AGITATED
    69733 FLUIDIZED
    1 FLUIDIZEDS
    69733 FLUIDIZED
        (FLUIDIZED OR FLUIDIZEDS)
    165728 BED
    66197 BEDS
    189676 BED
        (BED OR BEDS)
L1      1 GAS AGITATED FLUIDIZED BED
        (GAS (W) AGITATED (W) FLUIDIZED (W) BED)
```

=> d l1

```
L1  ANSWER 1 OF 1  CAPLUS  COPYRIGHT 2006 ACS on STN
AN  1958:112856  CAPLUS
DN  52:112856
OREF 52:19875a-d
TI  Purifying and desulfurizing zinc sulfide ores and concentrates
IN  Long, Carleton C.; Najarian, Herand K.
PA  St. Joseph Lead Co.
DT  Patent
LA  Unavailable
FAN.CNT 1
```

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 2847294		19580812	US 1952-265318	19520107

```
=> s prevent? (s) catalyst particle? (s) slump?
    870303 PREVENT?
    729863 CATALYST
    732702 CATALYSTS
    936653 CATALYST
        (CATALYST OR CATALYSTS)
    1183317 PARTICLE?
    6281 CATALYST PARTICLE?
```

(CATALYST(W) PARTICLE?)
3373 SLUMP?
L2 0 PREVENT? (S) CATALYST PARTICLE? (S) SLUMP?

=> s catalyst particle? (s) slump?
729863 CATALYST
732702 CATALYSTS
936653 CATALYST
(CATALYST OR CATALYSTS)
1183317 PARTICLE?
6281 CATALYST PARTICLE?
(CATALYST(W) PARTICLE?)
3373 SLUMP?

L3 0 CATALYST PARTICLE? (S) SLUMP?

=> s reference flow rate and fischer tropsch
74908 REFERENCE
246964 REFERENCES
318492 REFERENCE
(REFERENCE OR REFERENCES)
195044 REF
1464767 REFS
1648269 REF
(REF OR REFS)
1949140 REFERENCE
(REFERENCE OR REF)
852194 FLOW
87059 FLOWS
890941 FLOW
(FLOW OR FLOWS)
1763181 RATE
589435 RATES
2104529 RATE
(RATE OR RATES)
6 REFERENCE FLOW RATE
(REFERENCE(W) FLOW(W) RATE)
23831 FISCHER
17 FISCHERS
23843 FISCHER
(FISCHER OR FISCHERS)
8123 TROPSCH
8020 FISCHER TROPSCH
(FISCHER(W) TROPSCH)

L4 0 REFERENCE FLOW RATE AND FISCHER TROPSCH

=> d his

(FILE 'HOME' ENTERED AT 10:00:49 ON 06 AUG 2006)

FILE 'CAPLUS' ENTERED AT 10:01:02 ON 06 AUG 2006

L1' 1 S GAS AGITATED FLUIDIZED BED
L2 0 S PREVENT? (S) CATALYST PARTICLE? (S) SLUMP?
L3 0 S CATALYST PARTICLE? (S) SLUMP?
L4 0 S REFERENCE FLOW RATE AND FISCHER TROPSCH

=> s gas agitated multiphase reactor
1514333 GAS
511435 GASES
1696248 GAS
(GAS OR GASES)
26292 AGITATED
14180 MULTIPHASE
99 MULTIPHASES
14252 MULTIPHASE

(MULTIPHASE OR MULTIPHASES)

413607 REACTOR
243995 REACTORS
464031 REACTOR

(REACTOR OR REACTORS)

L5 7 GAS AGITATED MULTIPHASE REACTOR
(GAS (W) AGITATED (W) MULTIPHASE (W) REACTOR)

=> d l5 ibib ab 1-7

L5 ANSWER 1 OF 7 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2005:1028104 CAPLUS

DOCUMENT NUMBER: 143:308084

TITLE: Prevention of and recovering from a catalyst bed
slumping in a gas-agitated
multiphase reactor used for
hydrocarbon manufacture

INVENTOR(S): Mohedas, Sergio R.; Espinoza, Rafael L.; Cnossen, Jack
E.; Harkins, Todd H.; Melquist, Vincent H.; Swinney,
Larry D.

PATENT ASSIGNEE(S): Conocophillips Company, USA

SOURCE: U.S. Pat. Appl. Publ., 14 pp.

CODEN: USXXCO

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2005209351	A1	20050922	US 2004-804521	20040319
WO 2005095312	A1	20051013	WO 2005-US4800	20050216
W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW			
RW:	BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG			

PRIORITY APPLN. INFO.: US 2004-804521 A 20040319

AB Methods are described for prevention of and recovery from a Fischer-Tropsch catalyst bed slumping in a gas-agitated multiphase hydrocarbon synthesis reactor, while the reactor is either under non-reactive conditions or under reaction promoting conditions when synthesis gas is converted to products. The reactor contains a catalyst bed comprising catalyst particles and a gas injection zone suitable for injecting a reactor gas feed. A method for preventing bed slumping comprises supplying a supplemental gas to the gas-agitated multiphase reactor to prevent the catalyst bed from slumping due to insufficient reactor gas feed flow. The method may include recycling some or all of the supplemental gas to the reactor. Process flow diagrams are presented.

L5 ANSWER 2 OF 7 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2004:847659 CAPLUS

DOCUMENT NUMBER: 141:316988

TITLE: Process and apparatus for controlling flow in a
multiphase reactor

INVENTOR(S): Jiang, Yi; Zhang, Jianping; Espinoza, Rafael L.

PATENT ASSIGNEE(S): Conocophillips Company, USA

SOURCE: PCT Int. Appl., 29 pp.
 CODEN: PIXXD2
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004088227	A2	20041014	WO 2004-US8938	20040324
WO 2004088227	A3	20050526		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW RW: BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				

US 2004235968	A1	20041125	US 2004-807851	20040324
PRIORITY APPLN. INFO.:			US 2003-458818P	P 20030328

AB The apparatus and method for controlling the hydrodynamics within a gas agitated multiphase reactor at a given gas linear velocity involve novel configurations of the multiphase reactor internal structures. The configurations comprise a plurality of discrete reaction flow zones created by arranging the internal structures of a multiphase reactor to create a more even distribution of smaller gas bubbles to enhance productivity and conversion.

L5 ANSWER 3 OF 7 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2004:817413 CAPLUS

DOCUMENT NUMBER: 141:316239

TITLE: Conjoined reactor system for the manufacture of hydrocarbons from synthesis gas

INVENTOR(S): Espinoza, Rafael L.; Zhang, Jianping; Mohedas, Sergio R.; Ortego, James D., Jr.

PATENT ASSIGNEE(S): ConocoPhillips Company, USA

SOURCE: U.S., 18 pp.

CODEN: USXXAM

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 6800664	B1	20041005	US 2003-444459	20030523
WO 2004106824	A2	20041209	WO 2004-US12824	20040426
WO 2004106824	A3	20050310		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				

US 2004235969	A1	20041125	US 2004-842171	20040510
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PRIORITY APPLN. INFO.:

US 2003-444459

A 20030523

AB A gas-agitated multiphase reactor

system with multiple reaction zones comprising gas-liquid or gas-liquid-solid mixts. that can maximize the hydrocarbon production rate from synthesis gas, while allowing better control of the temperature distribution and better

control

of the liquid and solid phases in the reactors, is described. Also presented is a method for operating a pair of linked gas-agitated slurry reaction zones such that the hydrodynamic behavior and reactor performance of such reactor systems are improved compared to that of a conventional slurry-bed reactor.

REFERENCE COUNT:

9

THERE ARE 9 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 4 OF 7 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2004:203564 CAPLUS

DOCUMENT NUMBER: 140:237642

TITLE: Gas-agitated multiphase reactor with stationary catalyst solid phase

INVENTOR(S): Mohedas, Sergio R.; Espinoza, Rafael L.; Zhang, Jianping

PATENT ASSIGNEE(S): Conoco Inc., USA

SOURCE: U.S. Pat. Appl. Publ., 12 pp.

CODEN: USXXCO

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2004048938	A1	20040311	US 2002-238008	20020909
PRIORITY APPLN. INFO.:			US 2002-238008	20020909

AB An apparatus for converting a gaseous and/or liquid feed fluid into gaseous and/or liquid products using a solid catalyst comprises a reactor, a liquid phase disposed within the reactor volume, a fixed catalyst at least partially disposed in the liquid phase, a cooling system having a cooling element in thermal contact with the liquid phase, a feed inlet positioned to feed the feed fluid into the reactor volume, and a fluid outlet in fluid communication with the liquid phase. The catalyst is contained in a catalyst container and the container may be adjacent to said cooling element, extend through said cooling element, or may surround the catalyst container. The catalyst may be a Fischer-Tropsch catalyst; reactor diagrams are presented.

L5 ANSWER 5 OF 7 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2003:473275 CAPLUS

DOCUMENT NUMBER: 139:38569

TITLE: Slurry bed reactor

INVENTOR(S): Zhang, Jianping; Espinoza, Rafael L.; Mohedas, Sergio

PATENT ASSIGNEE(S): Conocophillips Company, USA

SOURCE: U.S. Pat. Appl. Publ., 13 pp.

CODEN: USXXCO

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2003114543	A1	20030619	US 2001-23258	20011214
US 6914082	B2	20050705		
CA 2470380	AA	20030626	CA 2002-2470380	20021213
WO 2003052335	A2	20030626	WO 2002-US39826	20021213

WO 2003052335 A3 20040115

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN,
CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH,
GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR,
LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH,
PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ,
UA, UG, UZ, VC, VN, YU, ZA, ZM, ZW

RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY,
KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES,
FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, SI, SK, TR, BF, BJ,
CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

AU 2002359691 A1 20030630 AU 2002-359691 20021213

EP 1453779 A2 20040908 EP 2002-794244 20021213

R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, SK

PRIORITY APPLN. INFO.:

US 2001-23258 A 20011214

WO 2002-US39826 W 20021213

AB The invention relates to a Fischer-Tropsch process for making hydrocarbons from syngas. A gas-agitated multiphase reactor system for the synthesis of hydrocarbons gives high catalyst productivity and reactor capacity. The system includes operating a multi-phase reactor in the well-mixed gas flow regime, with a Peclet number less than 0.175 and a single pass conversion ranging from 35% to 75%, wherein the inlet superficial gas velocity decreases with the decreasing of the reactor aspect ratio, and is preferably at least 20 cm/s.

REFERENCE COUNT: 32 THERE ARE 32 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 6 OF 7 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2003:98000 CAPLUS

DOCUMENT NUMBER: 138:139271

TITLE: Minimizing the volume or maximizing the production rate of slurry bubble reactors by using large gas flow rates and moderate single pass conversion

INVENTOR(S): Zhang, Jianping; Wright, Harold A.

PATENT ASSIGNEE(S): Conoco Inc., USA

SOURCE: U.S. Pat. Appl. Publ., 10 pp.

CODEN: USXXCO

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 2

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2003027875	A1	20030206	US 2002-205215	20020725
ZA 2004000281	A	20050114	ZA 2004-281	20040114

PRIORITY APPLN. INFO.: US 2001-307742P P 20010725

AB A gas-agitated multiphase reactor system that is effective for enabling maximum reactor productivity or minimizing reactor volume comprising at least two stages with or without recycle, wherein inlet gas superficial velocity is at least 20 cm/s at Fischer-Tropsch synthesis, yielding a total syngas conversion of greater than .apprx.90%, while syngas conversion in each reactor is <60%. More specifically, the total reactor volume is held to a min. such that min. reactor volume is <0.02 cubic meters total reactor volume/(kg C5+ /h production).

L5 ANSWER 7 OF 7 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2003:97378 CAPLUS

DOCUMENT NUMBER: 138:156122

TITLE: Optimization of Fischer-Tropsch production rate in slurry bubble reactors with large gas flow rates and moderate single-pass conversion

INVENTOR(S): Zhang, Jianping; Wright, Harold A.
 PATENT ASSIGNEE(S): Conoco Inc., USA; Conocophillips Co.
 SOURCE: PCT Int. Appl., 17 pp.
 CODEN: PIXXD2
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 2
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2003010117	A2	20030206	WO 2002-US23796	20020725
WO 2003010117	A3	20031106		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZM, ZW				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
CA 2454237	AA	20030206	CA 2002-2454237	20020725
EP 1414774	A2	20040506	EP 2002-759188	20020725
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, SK				
ZA 2004000281	A	20050114	ZA 2004-281	20040114
PRIORITY APPLN. INFO.:			US 2001-307742P	P 20010725
			WO 2002-US23796	W 20020725

AB A gas-agitated multiphase reactor system, for achieving maximum reactor productivity with minimized reactor volume, especially in slurry bubble Fischer-Tropsch reactors, comprises at least two stages with or without recycle, in which the inlet gas superficial velocity is >20 cm/s, yielding a total synthesis gas conversion of >90% at a synthesis gas conversions in each reactor is <60%. Heavy material (e.g., b. >40°), including water, can be condensed between reactor stages so that unconverted synthesis gas is passed to addnl. reactors for addnl. conversion. More specifically, the total reactor volume is held to a min. such that the min. reactor volume is <0.02 m³, the C₅+ productivity per reactor is >0.2 g C₅+ hydrocarbons/g-h catalyst, and the overall C₅+ volumetric production is >50 kg C₅+ hydrocarbons/h-m³ expanded catalyst bed.

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USPATFULL/USPAT2
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NEWS 10 JUN 02 The first reclassification of IPC codes now complete in
INPADOC
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and display fields
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NEWS 13 JUL 11 CHEMSAFE reloaded and enhanced
NEWS 14 JUL 14 FSTA enhanced with Japanese patents
NEWS 15 JUL 19 Coverage of Research Disclosure reinstated in DWPI

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MACINTOSH VERSION IS V6.0c(ENG) AND V6.0Jc(JP),
AND CURRENT DISCOVER FILE IS DATED 26 JUNE 2006.

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    195044 REF
    1464767 REFS
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        (REFERENCE (W) FLOW (W) RATE)
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    23843 FISCHER
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L2      0 L1 AND FISCHER TROPSCH
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(FISCHER(W)TROPSCH)

L3 0 PREVENT? CATALYST (S) SLUMP? AND FISCHER TROPSCH

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870303 PREVENT?
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732702 CATALYSTS
936653 CATALYST
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(PREVENT?(W)CATALYST)

3373 SLUMP?
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870303 PREVENT?
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732702 CATALYSTS
936653 CATALYST
(CATALYST OR CATALYSTS)
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L5 2 PREVENT? (3A) CATALYST (5A) SLUMP?

=> d 15 1-2

L5 ANSWER 1 OF 2 CAPLUS COPYRIGHT 2006 ACS on STN

AN 2005:1028104 CAPLUS

DN 143:308084

TI Prevention of and recovering from a catalyst bed slumping in a
gas-agitated multiphase reactor used for hydrocarbon manufacture

IN Mohedas, Sergio R.; Espinoza, Rafael L.; Cnossen, Jack E.; Harkins, Todd
H.; Melquist, Vincent H.; Swinney, Larry D.

PA Conocophillips Company, USA

SO U.S. Pat. Appl. Publ., 14 pp.

CODEN: USXXCO

DT Patent

LA English

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 2005209351	A1	20050922	US 2004-804521	20040319
	WO 2005095312	A1	20051013	WO 2005-US4800	20050216
	W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
	RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
PRAI	US 2004-804521	A	20040319		

L5 ANSWER 2 OF 2 CAPLUS COPYRIGHT 2006 ACS on STN

AN 1996:449698 CAPLUS

DN 125:89867

TI Catalytic reactor for steam reforming reactor fuel into product gas and
 designed to decrease catalyst slumping and crushing
 IN Sederquist, Richard A.; Corrigan, Thomas J.; Szydlowski, Donald F.; Bonk,
 Stanley O.
 PA International Fuel Cells Corporation, USA
 SO PCT Int. Appl., 21 pp.
 CODEN: PIXXD2
 DT Patent
 LA English
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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PI	WO 9615850	A1	19960530	WO 1995-US12233	19950922
	W: CA, JP				
	RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
	CA 2207922	AA	19960530	CA 1995-2207922	19950922
	EP 792189	A1	19970903	EP 1995-933214	19950922
	EP 792189	B1	19980805		
	R: AT, BE, CH, DE, DK, ES, FR, GB, IT, LI, NL, PT, SE				
	AT 169240	E	19980815	AT 1995-933214	19950922
	JP 10509091	T2	19980908	JP 1995-516816	19950922
PRAI	US 1994-340937	A	19941117		
	WO 1995-US12233	W	19950922		